

AMENDMENTS TO THE CLAIMS:

Please amend the claims as follows:

1. (currently amended) An air intake control device for ~~an internal combustion~~ a diesel engine comprising:

a throttle valve installed in an air intake passage of the engine;

a motor for controlling the throttle valve in response to signals from a control unit[[, and]];

a bypass for supplying air downstream from [[a]] the throttle valve by bypassing the throttle valve when the throttle valve is in a mechanically fully closed position[[,]]; and

a return spring for exerting a spring force on the throttle valve toward a position defining a maximum intake air volume,

wherein a throttle valve position defining a minimum intake air volume under control for air intake is formed at a position slightly more open than the mechanically fully closed position of the throttle valve.

2. (currently amended) An air intake control device for ~~an internal combustion~~ a diesel engine comprising:

a throttle valve for controlling an opening area of an air intake passage;
[[and]]

a motor for controlling the throttle valve in response to signals from a control unit[[,]]; and

a return spring for exerting a spring force on the throttle valve toward a position defining a maximum intake air volume,

wherein a throttle valve position ~~throttle valve~~ defining a minimum intake air volume under control for air intake is formed at a position slightly more open than ~~[[the]]~~ a mechanically fully closed position of the throttle valve, and

a groove for increasing an air passage area is formed upstream from the throttle valve position defining the minimum intake air volume on an interior a wall of the air intake passage, so that the throttle valve enters into the groove area at the mechanically fully closed position.

3. (previously presented) The air intake control device for an internal combustion engine according to Claim 2, wherein the groove is formed in the air intake passage so as to increase the volume of air passing through the air intake passage when the throttle valve has closed beyond a predetermined angle.

4. (previously presented) The air intake control device for an internal combustion engine according to Claim 3, wherein a the groove is formed in the air intake passage so as to maintain a constant volume of air passing through the air intake passage when the throttle valve has closed beyond a predetermined angle.

5. (previously presented) The air intake control device for an internal combustion engine according to Claim 2, wherein a part of the air intake passage is formed in a spherical form approximate to the rotary locus of the throttle valve.

6. (previously presented) The air intake control device for an internal combustion engine according to Claim 3, wherein a part of the air intake passage is formed in a spherical form approximate to the rotary locus of the throttle valve.

7. (previously presented) The air intake control device for an internal combustion engine according to Claim 4, wherein a part of the air intake passage is formed in a spherical form approximate to the rotary locus of the throttle valve.

8-10. (canceled)

11. (previously presented) A motor-driven throttle device for a diesel engine, wherein a throttle valve is installed in an air intake passage so as to be rotatable in both a clockwise direction and a counterclockwise direction across a position defining a minimum intake air volume; and

a position defining a maximum intake air volume is set at one endpoint of the clockwise and counterclockwise throttle valve rotation range, and a position defining an intermediate intake air volume is set at an opposing endpoint of the range.

12-14. (canceled)

15. (new) The air intake control device for a diesel engine according to claim 1, wherein a groove to be the bypass is formed along a circumference of the throttle valve on inner surface of the throttle body forming the air intake passage.

16. (new) The air intake control device for a diesel engine according to claim 2, the groove is formed along a circumference of the throttle valve on inner surface of a throttle body forming the air intake passage.

17. (new) The motor-driven throttle device for a diesel engine according to claim 11, the groove is formed along a circumference of the throttle valve on inner surface of a throttle body forming the air intake passage.

18. (new) The air intake control device for a diesel engine according to claim 1, comprising a motor housing for the motor, which is integrated with a throttle body forming the intake passage,

wherein a motor housing-inner surface part adjacent to the intake passage is flat, and

an intake passage-inner surface part opposite to the flat inner surface of the motor housing is provided with a groove to by the bypass.

19. (new) The air intake control device for a diesel engine according to claim 2, comprising a motor housing for the motor, which is integrated with a throttle body forming the intake passage,

wherein a motor housing-inner surface part adjacent to the intake passage is flat, and

an intake passage-inner surface part opposite to the flat inner surface of the motor housing is provided with the groove.

20. (new) The motor-driven throttle device for a diesel engine according to claim 11, comprising a motor housing for the motor, which is integrated with a throttle body forming the intake passage,

wherein a motor housing-inner surface part adjacent to the intake passage is flat, and

an intake passage-inner surface part opposite to the flat inner surface of the motor housing is provided with the groove.